

Invention Convention Literature Review Student Sample: Sixth Grade

The Problem and the Solution

The game of football can be both fun and exciting to play, yet at the same time it can be very dangerous. Many head injuries occur to athletes who participate in football. According to The Sports Injury Bulletin, “Head injuries account for up to 22% of all injuries in the sport.” Creating a helmet to cut down on these head injuries would be very beneficial. This specific helmet would be cushioned to soften blows to the head when hit during a game or practice. A wire will also monitor the brain’s activity, allowing a medical team to be alerted of an unusual activity by the athlete.

Terms and Definitions

Head injuries can be very extensive. A concussion is a possible and can be a likely result of a head injury. A concussion is a “state of neural dysfunction resulting from head trauma, with the possibility of dizziness, headache, confusion, visual disturbance, amnesia, loss of consciousness, nausea...” (The Sports Injury Bulletin). Effects from head injuries can remain throughout life. It is important for athletes to undergo a full neuropsychological examination when suffering from a head injury. A neuropsychological examination “explores in depth an individual’s performance in a wide range of functional domains” (Neuropsych Screening). During this assessment one can determine if he or she is displaying signs of neuropsychological impairment. Neuropsychological impairment can be a brain injury or brain disease (Neuropsych Screening).

Previous Research

Other researchers have worked on similar adaptations to football helmets to ensure the safety of its players when dealing with head or facial injuries. Theodore Monica created a football helmet motion restrictor (Patent # 5404590 Football Helmet Motion Restrictor), which can adjusted to vary its size (Google Patent Search). Russell Crister created a safety guard for a football helmet (Patent # 3283336 Safety Device in Combination with a Football Helmet). This allows the face to be protected as well (Google Patent Search). My particular helmet will cushion the blows to the head. There will be foam on the inside of the helmet that will assist in cushioning the head. A wire will be tucked into the foam that will allow for proper monitoring of the brain. The other end of the wire will be attached to the head of the athlete. This wire will transmit signals to the on-site medical team, alerting them if there are signs of danger after an athlete suffers a blow or hit to the head.